



IN THE MATTER OF THE UNITED STATES PATENT APPLICATION SERIAL NO. 09/740,965 IN FAVOUR OF JOHN ROBERT DAVIES, SEAN DAVIES AND SINNATHAMBY KUPENTHIRARAJAN, APPLICANTS AND INVENTORS OF THE SUBJECT MATTER THEREIN, FILED December 21, 2000.

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### DECLARATION

I, John Robert Davies, P. Eng., of the Town of Markham, in the Province of Ontario, Canada. DO SOLEMNLY DECLARE AND AFFIRM THE FOLLOWING:

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1. Most recently I have been a consultant to the plastic manufacturing industry with respect to tooling programs, related to parts design and processing problems for extrusion and injection mouldings. Particularly, I have provided consulting services for Preferred Engineering Ltd. for window hardware and screen systems. Prior to this I was employed as the Engineering Manager for Preferred Engineering Ltd. and had responsibilities for the development and manufacturing of window hardware including built-in screen assemblies. During my time with them we acquired several United States patents for these developments. A copy of my resume setting out my experience and Letter Patents granted to me is attached as **Exhibit A** to this my Declaration. As such I believe I am well qualified to comment and provide opinion in these matters.

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2. The following paragraphs contain my comments and opinions concerning the United States Patent Office Examiner's Action dated May 25, 2006 (hereafter referred to as the Action) concerning U.S. Patent Application No. 09/740,965 entitled "RETRACTABLE SCREEN SYSTEM AND IMPROVEMENTS THEREOF" (hereafter referred to as the '965 patent application). I am named as co-inventor for this application.

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3. I was asked by Neil H. Hughes, Patent Agent of the firm Ivor M. Hughes, Barrister and Solicitor, Patent and Trade Mark Agents to provide my opinion concerning the position taken by the United States Patent Office Examiner in the Action and his rejection of claims 1, 2, 10 and 16 of the '965 patent application. In particular, I was asked to provide my opinion with respect to the Examiner's allegation that pending claims 1, 2, 10 and 16 are allegedly anticipated by Morgan (US 2,235,295), attached as **Exhibit B** to this my Declaration, and hereinafter referred to as the '295 Patent or Morgan. I have met with our Agent and have instructed him as to what amendments

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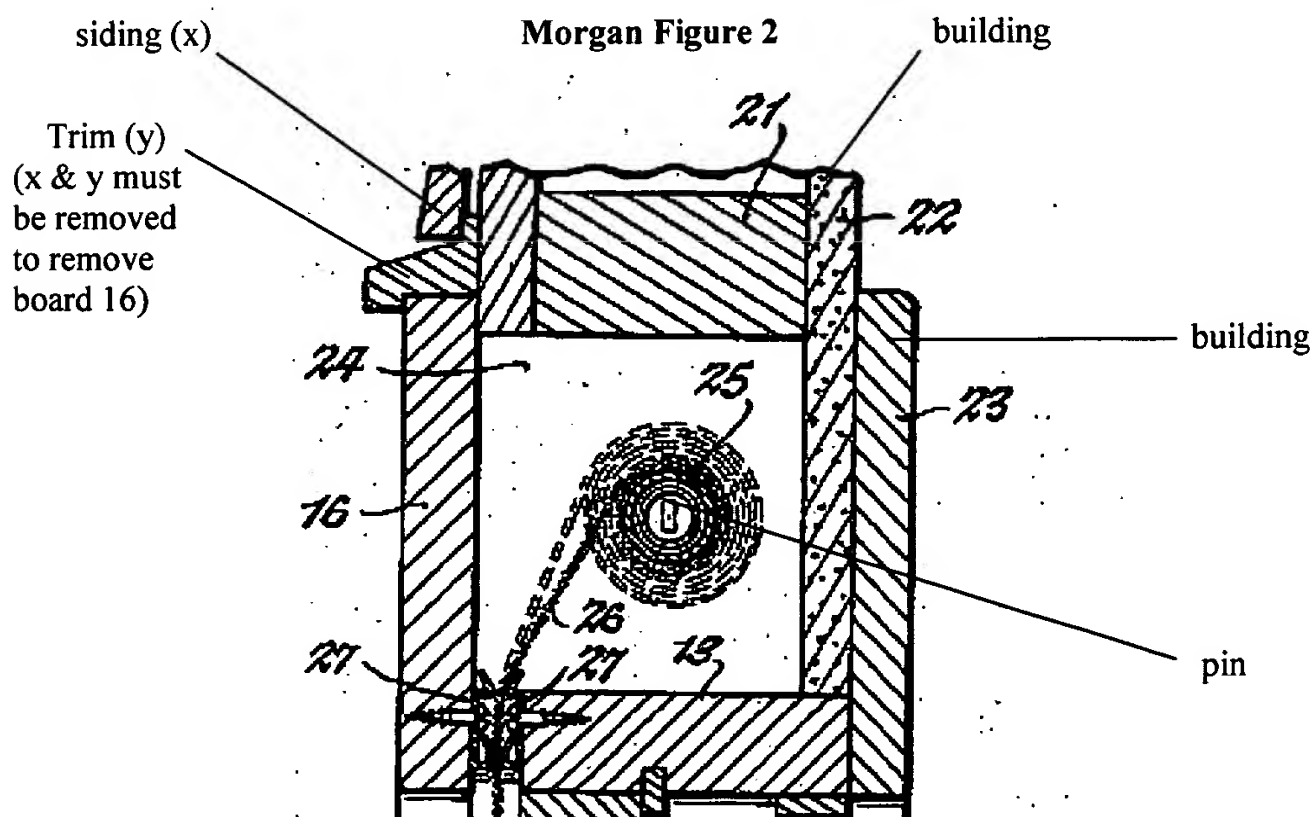
would be appropriate in view of the U.S. Examiner's allegations. The claims in the application have therefore been amended to clearly identify over the reference cited for the following reasons.

4. In my opinion, the invention described in amended claims 1, 2, 10 and 16 in the '965 patent application are not taught in Morgan directly or indirectly from the disclosure of the '295 Patent. I thus disagree with the conclusions reached by the Examiner in the Action with respect to the claims of the '965 patent application. I describe my opinions further below, with respect to the Examiner's comments and conclusions concerning the teachings and claimed inventions of the prior art.

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5. With respect to Morgan, after carefully considering the construction of the window assembly therein it is clear to me that Morgan's assembly is manufactured from wooden planks which make up the window units. These units are installed within openings in the home and once installed are sealed in place and the appropriate trim and siding are placed in position as best seen in Figure 2 of the '295 Patent.

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As far as I'm concerned the Morgan structure must be sealed in position, that is to say would be caulked for weather reasons and then painted. Morgan is also assembled with the use of screw fasteners. The net result would be that the construction must be painted. Over time, of course, the paint would harden over the screws making it more difficult to disassemble Morgan although it is

still possible but not practical. If the Morgan window is installed on the second floor of the home it must also be disassembled in order to access the screen.

5 There is no detail provided in Morgan as to how the screen is mounted though I am presuming that it is mounted conventionally like a roll-out blind. I must conclude that the screen of Morgan is considered to be a relatively permanent screen in view of the text in Morgan (see page 2 left column at line 24-27). In order to disassemble Morgan one would have to remove, any caulking, trim Y and siding X from the construction of the window and scrap any paint over the screws whether at the ground level or whether on the second floor and accessed by a ladder. Secondly I  
10 believe that the screening of Morgan is a metal screening since fabric screening was not available until after the application for Morgan was submitted in April 1940.

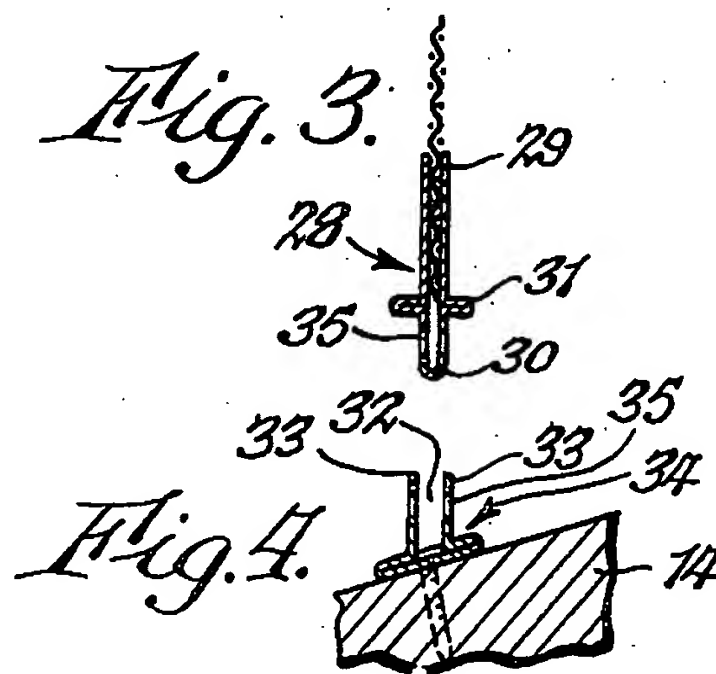
I also note that the guide strips 27 are held in place as well by screws within members 16 and 13 and would also have to be removed in order to disassemble Morgan to access the screen. The  
15 unlabelled trim section Y and siding X above board 16 will also have to be removed before removing board 16. These strips 27 are held in place in order to provide a bearing surface for the wire screen cloth, which is metal, of Morgan to easily run over these bearing surfaces 27 rather than over wood. In order to remove board 16 from the assembly, once Morgan scrapes off the paint from the board 16 and removes screws or nails and pries off the board (without cracking it)  
20 having already removed trim Y and siding X (Morgan would have to initially somehow remove these items whether in fact they are wood or sheet metal). The trim piece Y is a rain cap installed below the siding X as seen in Figure 2 above, which sits upon the upper edge of board 16. So ultimately in order to remove board 16 one would have to remove the sheet metal siding piece X above the trim piece Y which also must be removed which then provides access to the board 16.

25 Presuming Morgan is successful he is then able to remove the screen from its mounting presuming the mounting is the same as a roll-out blind. Otherwise, there are no details as to the mounting of the spring-biased screen. Once the screen and roller are removed from the area 24 of Morgan and presuming that the screen can be repaired or replaced, one now faces the need to reinstall a screen  
30 25 within the space 24. Placing the screen on its roller on the mounting should be simple. The free end of the screen and handle portion 28 would then have to be pulled past the bearing surface 27 and the board 16 would then be remounted in place, presuming it could be mounted in place along with the necessary sealing, caulking and painting steps required. The trim piece Y above

board 16 would then be reinstalled and caulked and finally the siding piece X would be reinstalled on that trim piece and sealed as necessary.

- In my opinion therefore Morgan has not provided a practical means for replacing and repairing the screen 25 in his assembly. If paint has to be scraped off of the facing of board 16 then one would have to allow for resealing and repainting that board. If the board cracks during removal then it will have to be replaced. If the window assembly is on the second floor all the work above-mentioned will have to be done from the outside of the window, as board 16 faces the outside as taught in Morgan, and secondly that repair would have to be made on a ladder. I also assume that in replacing the screen of Morgan that because there is no teaching as to how the spring tension within the roller assembly of Morgan would be held while repairing the metal screen cloth, that the screen of Morgan would be removed and replaced with an equivalent spring loaded screen assembly and the unit in need of repair would then be repaired at a shop or the like.
- Another comment I would like to make is that the Morgan structure provides no latch or lock at the bottom of the assembly as best seen in Figures 3 and 4.

Morgan Figures 3 and 4



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The flanges of the channel strip 33 and tongue portion 30 of the reinforcing strip are formed with aligned openings 35 for accommodating screws 36 (not shown here) which hold the screen element stretched in its operative position against the tension of the spring of the roller 25. So what Morgan is saying is he screws down the free-end of the screen as described above. In my

opinion this is not a practical way of securing the end of a screen for daily operation. It is my assumption therefore that the screen of Morgan would only be placed in the operative position once or twice a year. Morgan doesn't operate the screen daily, that is, pulling the screen up and down from its inoperative to its operative position. It is only for seasonal use and not intended for daily use and therefore the screen would not be hidden when not in use, for example if the window is closed. Our screen assembly may be hidden to improve the view from the window. This is not the case with Morgan. The Morgan assembly is installed from the outside of the building, this is clear to me, and once installed the trim pieces Y and the siding X are placed in position. Further in view of the way Morgan must be assembled clearly this entire assembly cannot be considered to include a screen cassette. Morgan does not teach a cassette. It is a built-in unit, built in place piece by piece as a permanent construction and lacks any instruction as to how to replace the screen assembly beyond that which I have expressed above from my analysis of the '295 Patent.

So contrary to the Examiner's views expressed in the action of May 25, 2006, which I have reviewed and attached to this my declaration, it is clear to me that Morgan cannot be easily disassembled (and subsequently reassembled by the way) as asserted by the Examiner. Morgan teaches a double hung window assembly that includes counterweights, no doubt of the rope type including iron weights or the like, but the details of this are not disclosed. Morgan was never designed to easily replace the screen assembly. The Morgan screen assembly clearly does reside in a space built above the header. But I believe that header of Morgan is actually board 13. The space 24 is therefore not within the header which one might argue that the space 24 is defined above the header 13.

The Morgan construction therefore is very different from the construction defined in the current amended claim set presently before the Examiner as set out below.

*1. A window assembly comprising a window frame for supporting a window, said window frame including, a jamb having an interior, defining a jamb pocket portion containing roll screen cassette including a retractable mesh screen, carried on a spring biased roller, said cassette being contained within the jamb pocket portion, said jamb and said jamb pocket portion being an integral one piece unit manufactured when the jamb of the window frame is formed, said jamb pocket portion being defined by three sides of the interior of said jamb of the window frame, the mesh screen accumulating on and paying out from the spring biased roller of the roll screen cassette, disposed within said jamb pocket portion, wherein roll screen cassette and the mesh screen thereof are readily accessible from the jamb pocket for replacement or maintenance purposes without the need of disassembling the window assembly.*

Clearly this structure defined in claim 1 above is not found within Morgan in my opinion and the substantial differences are clear to me with respect to both the structure and the steps needed for replacing the screen cassette of the present invention versus the screen mounted on the roll-tube of Morgan. We merely need to remove the screen cassette as defined in the disclosure of the present application and replace it with an equivalent without the need to remove any trim or siding parts of the building with the exception of perhaps in one embodiment removing a cover from the jamb section wherein the screen cassette is mounted. Thus the Examiner is incorrect about accessing the screen of Morgan by "simply removing the trim board (16) of Morgan would allow even a novice to work on the mesh screen". As set out above the steps are not simple and are more involved than the Examiner asserts, as I set out above.

For all the reasons I provide in my analysis above I disagree with the Examiner's conclusions that Morgan teaches the claim set in the present application and particularly claim 1 as amended above. With all due respect the Examiner is not one skilled in the art and his analysis of Morgan is incorrect in my opinion.

6. It is therefore my opinion that Morgan does not teach towards or disclose the claimed inventions as amended in the present submission. As a result, I completely disagree with the statements made and conclusions reached by the Examiner for all the reasons expressed above.

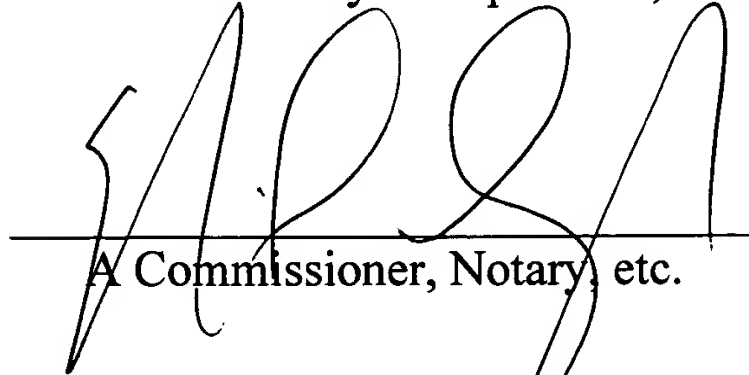
7. I solemnly declare and affirm further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereof.

30 AFFIRMED before me  
at the Town of Markham  
in the Province of Ontario, Canada  
this 14<sup>th</sup> day of September, 2006

  
John Robert Davies, P. Eng.

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Commissioner, Notary Public  
for taking Oaths  
NEIL HARVEY HUGHES, Notary Public, Province of Ontario,  
limited to the attestation of instruments and the taking of  
affidavits, for Ivor M. Hughes, Barrister and Solicitor,  
Patent and Trademark Agents.  
Expires March 30, 2007.

This is EXHIBIT A referred to in the  
Declaration of John Robert Davies, P. Eng.  
sworn this 14<sup>th</sup> day of September, 2006



A Commissioner, Notary, etc.

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## JOHN ROBERT DAVIES

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Markham, ON L3P1G2

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Cell: 416-200-8093

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### **Education**

1962 B.A.Sc. Mechanical Engineering  
University of Waterloo  
Waterloo, Ontario

### **Employment**

**2000 to Present** Consultant

Consulting work for Jacuzzi on Pool Products, Wasip on Safety Helmets, Fuelmaker on housings for high pressure natural gas pumps, Hiltech on Highway Inroad lighting LEDs cast in moulded plastic, Preferred Engineering on Window hardware and screen systems and R&M Plastic Products on high speed Swab stick manufacture.

Consulting to the manufacturing plastic industry on tooling programs, part design and process problems specializing in extrusion and injection moulding. Considerable time is spent on working with design teams on locking systems and modular assembly systems for entry door screens.

**1992 – 1999** Preferred Engineering Products  
Engineering Manager  
Vaughan, Ontario

Responsible for the directing of a design team in development and manufacturing of unique window hardware. It included a universal hardware system which allowed windows not only slide but to swing in any location for egress and cleaning. Six Patents were applied for. This included built in screens for window systems.

The earlier product develop in 1992 allowed a double hung window system to be converted to a slider with the addition of our hardware sold under the name Tilt and Slide. This allowed a slider sash to be safely swung into the house for safe glass cleaning. We had a test chamber that allowed us to test windows from all over North America and how it applied to our hardware. Water penetration, deflection under wind load and air leakage were all part of the test. This gave insight into requirements for hardware systems in windows. This lead to the development of a special water weeping system that is currently marketed.

The next generation was developed under the name of Magic Window and was a hardware system that applied to all primary moving windows – Casement – Slider and Double Hung. It consists of single activation multipoint locking systems and a window sash carrying system. It is the only system that allows rapid (5 seconds) full window opening from a locked



position for egress in case of fire. Manufacturing systems to produce these products was also part of my responsibility.

Built in hidden screens were always a key element in latest generation of window systems. Retraction systems and locking systems are some of the latest developments that have been completed.

**1989 – 1991** CCL  
Development Manager  
Toronto, Ontario

Duties were to manage a design team in the development of an environmentally friendly aerosol using a bladder system and compressed nitrogen as a driver. Part of this development included the development of production machinery that would manufacture the product consistently at high rates of speed.

**1962 – 1988** Toronto Plastics Ltd.  
Vice-President of Engineering  
Toronto, Ontario

I was responsible for product development, quotations and tooling programs. Toronto Plastics is an injection moulding and extruder of plastics that serviced companies like Xerox, Jacuzzi, IBM, Magna and many others. Toronto Plastics typically supplied engineered plastic parts and is one of the leading plastic moulders in Ontario. Toronto Plastics was heavily involved in the early development of plastic window profiles and hardware.

### **Professional Associations**

Society of Plastic Engineers (1965 to Present) - (President of the Ontario Section 1971-1972)  
Association of Professional Engineers of the Province of Ontario (1972 to Present)  
CSA committee for producing a Vinyl window specification (Chairman 1978-1980)

### **Canadian Patents**

- 2001 Bob Davies and Sean Davies  
CA 2,116,395 – Parallel Balance System
- 2001 Sinnathamby Kupenthirarajan and J. Robert Davies  
CA 2,131,958 - Drainage Or Weeping Port Closure For A Window Sill Or The Like
- 2002 John Robert Davies, Sean Davies and Sinnathamby Kupenthirarajan  
CA 2,219,946 - Retractable Screen System
- 2002 Sinnathamby Kupenthirarajan, Sean Davies, John Robert Davies  
CA 2,231,298 – Retractable Screen System And Improvements Therefor

- 2003 Sinnathamby Kupenthirarajan, Sean Davies, John Robert Davies and Shaul Goldenberg  
CA 2,218,640 – Improvements To Parallel Balance Systems
- 2005 Sinnathamby Kupenthirarajan, John Robert Davies and Sean Davies  
CA 2,249,147 – Screen Cassette And Compatible Framing Section Therefor

**United States Patents**

- 1996 John R. Davies and Sean J. Davies  
US D376,529 - Bracket
- 1997 Bob Davies, Shawn Davies and Shaul Goldenberg  
US 5,682,710 – Parallel Balance System
- 1997 Bob Davies, Sean Davies, Shaul Goldenberg and Sinnathamby Kupenthirarajan  
US 5,687,506 – Parallel Balance System
- 1997 John Robert Davies and Sean James Davies  
US D381,439 – Track Profile
- 1997 John Robert Davies and Sean James Davies  
US D383,057 - Carrier
- 1997 John Robert Davies and Sean James Davies  
US D382,472 – Extensible Shaft
- 1999 Bob Davies, Sean Davies, Shaul Goldenberg and Sinnathamby Kupenthirarajan  
US 5,946,857 – Parallel Balance System
- 2001 John Robert Davies, Sean Davies and Sinnathamby Kupenthirarajan  
US 6,267,168 - Screen Cassette And Compatible Framing Section Therefor
- 2001 John Robert Davies, Sean Davies and Sinnathamby Kupenthirarajan  
US 6,209,610 - Retractable Screen System And Improvements Therefor
- 2002 John Robert Davies, Sean Davies and Sinnathamby Kupenthirarajan  
US 6,405,781 – Screen Cassette And Compatible Framing Section Therefor
- 2002 John Robert Davies, Sean Davies and Sinnathamby Kupenthirarajan  
US 6,446,696 – Retractable Screen System
- 2003 John Robert Davies  
D470,749 – Roll Up Screen Connector

2004 John Robert Davies, Sean Davies and Sinnathamby Kupenthirarajan  
US 6,679,002 – Retractable Screen System

### **International Patents**

2004 John Robert Davies, Sean Davies and Sinnathamby Kupenthirarajan  
IS 138,251 - Screen Cassette And Compatible Framing Section Thereof

### **Patent Publications**

2001 John Robert Davies, Sean Davies and Sinnathamby Kupenthirarajan  
US 20010000878 – Retractable Screen System and Improvements Therefor

This is EXHIBIT B referred to in the  
Declaration of John Robert Davies, P. Eng.  
sworn this 14<sup>th</sup> day of September, 2006



A Commissioner, Notary, etc.

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